



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/508,878 | 03/16/2000 | GUSTAVO FERNANDEZ | P00.0449 | 3536 |

29177 7590 07/31/2002
BELL, BOYD & LLOYD, LLC
P. O. BOX 1135
CHICAGO, IL 60690-1135

[REDACTED] EXAMINER

D AGOSTA, STEPHEN M

[REDACTED] ART UNIT [REDACTED] PAPER NUMBER

2684

DATE MAILED: 07/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

77

| | | |
|------------------------------|---------------------------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/508,878 | FERNANDEZ ET AL. |
| | Examiner Stephen M. D'Agosta | Art Unit 2684 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 2-10 and 12-14 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 2-10 and 12-14 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

| | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Response to Preliminary Amendment

1. The examiner acknowledges the preliminary amendment dated 16 March 2000, whereby **claim 1 and claim 11 was deleted** without prejudice or disclaimer, **claims 2-10 were amended and claims 12-14 were added.**

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 12 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. *The examiner is confused by the order of the “first, second and third means” for transmitting data (eg. they appear to be out of order since the “first means” discusses sending the identification prior to the request for identification which is discussed in the “second means”). Therefore the examiner has interpreted their overall function to be:*

1. *Mobile requests identification number*
2. *Base unit/station replies with an identification number and acknowledgement*
3. *Mobile acknowledges identification number*
4. *Local connection is used for #3 above.*

Please clarify.

2. Claim 12 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. *The examiner does not understand if the “local connection” MUST BE a separate connection other than the RF link used for voice communication OR can this local connection use said RF voice link if it is only capable of supporting short-distance communication?*

Since the specification defines “local” as “...any connection that assures spatial proximity....”, the examiner has interpreted this to mean the local connection can use the same RF path since one can argue that a cordless phone does have distance limitations.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 12, 2, 4, 8-10, and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston et al. U.S. Patent 5,787,360 and Saegusa et al. U.S. Patent 4,864,599 (hereafter referred to as Johnston and Saegusa).

As per **claim 12**, Johnston teaches a method for logging a mobile unit on at a base station comprising the steps of:

recognizing a logon situation wherein at least one of the mobile unit and the base station determines that the mobile unit is not yet logged on at the

base station (C5, L34-36 and L40-42);

generating an identifier (C5, L49-52 – ID is generated);

transmitting the identifier via a radio connection between the mobile unit and the base station (C5, L49-52 – ID is sent);

requesting identification with an acknowledgment signal via transmission over the radio connection between the mobile unit and the base station (C5, L40-42 – Request for ID and C5, L49-50 – acknowledgement sent)

local connection (a connection between mobile unit and base station only operates in a relatively short-range distance (C5, L21-23). So this limitation is interpreted to be a local connection)

but is silent on transmitting the acknowledgment signal

Saegusa teaches the transmittal of the product ID number from a cordless unit to an access unit/base station as an acknowledgement that the cordless phone has correctly received the “setup signal” (C3, L48-67 to C4, L1-10). This verification operation is required to avoid interference (C1, L11-23) from other wireless devices.

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that the cordless phone sends an acknowledgement to the base station, to ensure that the base station knows the cordless phone has received the registration information.

As per **claim 2**, Johnston teaches the method according to claim 12, wherein the local connection is electrical (eg. RF or wired) [C5, L36-38], infrared or “other

communications technology" (C17, L15-17) which would allow for the group consisting of a magnetic connection, an inductive connection and an optical connection.

As per **claim 4**, Johnston teaches the method according to claim 12, the radio unit contacts the home base station via RF or temporary wired connection (which would be a digital/binary connection) (C5, L34-39) [eg. wherein a binary signal is transmitted via the local connection]. Note that the RF link, for example, would also have two (binary) states through the use of amplitude/frequency modulation.

As per **claim 8**, Johnston teaches the method according to claim 12, **but is silent on** wherein the acknowledgment signal is generated by the mobile unit and is transmitted to the base station.

Saegusa teaches the transmittal of the product ID number from a cordless unit to an access unit/base station as an acknowledgement that the cordless phone has correctly received the "setup signal" (C3, L48-67 to C4, L1-10). This verification operation is required to avoid interference (C1, L11-23) of other wireless devices.

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that an acknowledgment signal is generated by the mobile unit and is transmitted to the base station, for situations that require the base station to know if the mobile unit received the identification number or to retransmit it again.

As per **claim 9**, Johnston teaches the method according to claim 12, **but is silent on** wherein the acknowledgment signal is transmitted within a predetermined time interval in response to a request signal transmitted via the radio connection.

One skilled in the art of communications knows that it is customary to use timers/time-out periods for situations that require logon, authentication, etc.. This eliminates the possibility of endlessly waiting for a positive acknowledgement. Many automated systems (ie. ATMs, Voicemail, IVR's, etc.) provide a timer that will cancel a session should a response not occur within a specified time limit (ie. the user does not provide his/her ATM/Voicemail PIN or IVR account number). Hence, one skilled in the art would use a predetermined time interval to repeat the acknowledgement process should it fail. [Note that Johnston does allude to excessive delay for the propagation of voice signals, C13, L5-24].

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that acknowledgment signal is transmitted within a predetermined time interval in response to a request signal transmitted via the radio connection, to eliminate possibility of an endless wait state during login/authentication.

As per **claim 10**, Johnston teaches the method according to claim 12 **but is silent on** further comprising the step of: transmitting logon data via radio connection.

Johnston does teach the invention supporting computing devices such as mobile laptop computers (figure 1, #18) which can connect to a LAN interface (C3, L45-52) for data communications. One skilled in the art of computer networking knows that a user must logon to a LAN before it can send data via the LAN. Hence, logon data would be transmitted via the radio connection as the user logs-in to the server.

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that logon data is transmitted via the radio connection, to provide a mobile computer/PDA user the ability to logon to a LAN and transmit/receive data.

As per **claim 13**, Johnston teaches a communication system having at least one mobile unit and at least one base station (figure 1 shows phones #14 and base stations #12), comprising:

a means for recognizing a logon situation (C5, L34-40 teaches that a radio unit cannot operate before it subscribes to a base station as its home base station);

a means for generating an identifier (C5, L49-52 – base station's control unit sends identifier to mobile unit after it requests one);

a radio connection between the at least one mobile unit and the at least one base station (C5, L40-42 – radio unit contacts base station for identifier);

a local connection between the at least one mobile unit and the at least one base station (C5, L36-37 – mobile unit must be “within range” of the base station);

a first means for transmitting the identifier via radio connection (C5, L49-52 – base station controller uses radio link to send identifier); and

a second means for transmitting a request for identification signal via the radio connection (C5, L40-42 – request for identification); and

a third means for transmitting acknowledgement via the local connection (C5, L36-37 – mobile unit must be “within range” of the base station and C5, L49-52 for transmission of acknowledgement);

But is silent on: (second means) with an acknowledgment.

Saegusa teaches the transmittal of the product ID number from a cordless unit to an access unit/base station as an acknowledgement that the cordless phone has correctly received the “setup signal” (C3, L48-67 to C4, L1-10). This verification operation is required to avoid interference (C1, L11-23).

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that the mobile sends an acknowledgement, to provide 100% verification that the mobile unit received the identification.

Claims 3 and 5 rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston and Saegusa further in view of Haraguchi et al. U.S. Patent 4,979,205 (hereafter referred to as Haraguchi).

As per **claim 3**, Johnston teaches the method according to claim 12, wherein the mobile radio can be wired to the base station (C5, L36-38) [eg. local connection is an electrical connection] **but is silent on** the connection being via respective charging contacts of the mobile unit and the base station.

Haraguchi teaches data transmission (eg. sending of identification codes) via the charging contacts of the handset and base unit (abstract).

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that a data connection can be made via respective charging contacts of the mobile unit and the base station, to provide added security since a phone user must have access to the base unit.

As per **claim 5**, Johnston teaches the method according to claim 12, wherein the step of recognizing the logon situation is triggered when the mobile unit is placed onto the base station.

Haraguchi teaches the sending of an identification code when the phone is placed in the base unit (abstract). One skilled in the art would use this to trigger a logon situation.

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that recognizing the logon situation is triggered when the mobile unit is placed onto the base station, to force the user to be located at a base station which provides added security – ie. the user must gain access to the base unit NOT by an RF link.

Claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston and Saegusa further in view of Chiu et al. U.S. Patent 5,500,888 (hereafter referred to as Chiu).

As per **claim 6**, Johnston teaches the method according to claim 12, wherein the step of generating the identifier is based upon the IP Address of the base station and a radio unit reference number (C5, L49-56) **but is silent on** includes generating the identifier as a random number.

Chiu teaches a security code that is generated by random number generation (abstract). This design would provide better security than Johnston's system since Johnston merely "randomizes" his ID by using a number which represents the number

of phones connected to the base station. One skilled in the art would provide a counter that counts the number of phones attached, to limit said number of phones, in conjunction with a random replacing the number of phones. This would provide better security since the number could be a very large number instead of being limited by the number of phones that can connect to the base station.

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that the identification ID is based upon a random number, to decrease the likelihood of an unauthorized person determining said ID since it cannot be easily guessed.

Claim 7 rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston and Saegusa further in view of D'Amico et al. U.S. Patent 5,077,790 (hereafter referred to as D'Amico).

As per **claim 7**, Johnston teaches the method according to claim 12, **but is silent on** wherein the identifier is generated by the mobile unit and is transmitted to the base station in the step of transmitting the identifier via the radio connection.

D'Amico teaches secure over-the-air registration of cordless telephones (title) whereby the portable unit (eg. cordless phone) sends the base station a request for registration which comprises the link identification number for over-the-air registration and the portable identification number (abstract).

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that the identifier is generated by the mobile unit and is

transmitted to the base station, to provide the mobile unit with the choice of selecting its own identifier – eg. may want to keep the same identifier for a period of time.

Claim 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Johnston and Saegusa further in view of Anglikowski et al. U.S. Patent 4,736,404 (hereafter referred to as Anglikowski).

As per **claim 14**, Johnston teaches an apparatus having at least one mobile unit (figure 1, #14) and a base station (figure 1, #12) comprising and a procedure whereby the mobile requests an identification number and is provided one (with an acknowledgement) from the base station (C5, L7-60) **but is silent on** various details of the hardware configurations and the steps taken during the phone-to-base station data transmission, for example:

- (1) a base station having a first control unit, a confirmation receiver, a first charging connector connected to the confirmation receiver and a first analog assembly configured for sending and receiving radio frequency signals;
- (2) at least one mobile unit having a second control unit, a confirmation transmitter, a second charging connector connected to the confirmation transmitter and a second analog assembly configured for sending and receiving radio frequency signals;
- (3) a radio connection between the base station and the at least one mobile unit via the first and second analog assemblies; and
- (4) a local connection formed by the connection of the first and second

charging connectors;

- (5) wherein the first and second control units are configured to detect a logon of the at least one mobile unit to the base station;
- (6) the second control unit generates an identifier and sends the identifier to the second analog assembly;
- (7) the second analog assembly transmits a first data frame including the identifier to the first analog assembly via the radio connection;
- (8) the first analog assembly is configured to receive the first data frame and send the first data frame to the first control unit and transmit an acknowledgment signal to second analog assembly via the radio connection in response to the first control unit;
- (9) the confirmation transmitter transmits the acknowledgment signal to the confirmation receiver via the local connection in response to receiving the acknowledgment signal in the second analog assembly.

Johnston does teach communication between a mobile and a base station (1 and 2 above) via an RF link (3 above) to register/subscribe said mobile with said base station. Johnston teaches a local connection (4 above) since the base station can be wired and the use of an acknowledgement being sent (8 and 9 above). Johnston also teaches that the phone and base station are preprogrammed to logon/subscribe when first activated within range of each other (5 above) and that the base station will send an ID/Acknowledgment message to the phone via RF link (6 and 7 above) – note that an acknowledgement would be generated/received by a “confirmation” unit or software routine (1 above).

Saegusa teaches the transmittal of the product ID number from a cordless unit to an access unit/base station as an acknowledgement that the cordless phone has correctly received the "setup signal" (C3, L48-67 to C4, L1-10). This verification operation is required to avoid interference (C1, L11-23).

Anglikowski teaches control units (figure 1, #13, #53) in both the base station and handset (1 and 2 above) and a local connection (via charging unit interface, 1 and 2 above) to transmit data (4 above) [abstract]. Since Anglikowski teaches data transmission via the charging interface, one skilled in the art would also be able to send acknowledgements through this interface as well (9 above).

It would have been obvious to one skilled in the art at the time of the invention to modify Johnston, such that system is configured and operates as outlined in steps 1-9 above, to provide an architecture with specific security steps to ensure that the user is authorized to utilize the system.

Conclusion

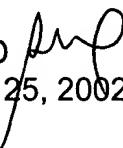
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

1. Fukuda U.S. Patent 5,995,844 teaches wireless telephone system.
2. Scholosser U.S. Patent 6,253,089 teaches transfer from base to phone.
3. Tayloe U.S. Patent 5,933,785 teaches telephone registration.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. D'Agosta whose telephone number is 703-306-5426. The examiner can normally be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Hunter can be reached on 703-308-6732. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist: 703-306-0377.

SMD 
July 25, 2002


DANIEL HUNTER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600